MOUSE MODELS OF HUMAN CANCER WEB-BASED RESOURCES

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The Mouse Models of Human Cancers Consortium (MMHCC) is a collaborative program designed to derive and characterize mouse models of human malignancies. To enhance information and resource exchange among the MMHCC investigators and other cancer research scientists, the NCI Center for Bioinformatics (NCICB, http://ncicb.nci.nih.gov/) has developed web-based resources that are freely available to the cancer research community. These resources include a website (http://emice.nci.nih.gov) and databases for cancer models (http://cancermodels.nci.nih.gov) and cancer images (http://cancerimages.nci.nih.gov).

The emice website describes mouse models for human cancer, providing background information on human cancer and a general overview of cancer incidence, disease etiology, current methods for diagnosis and treatment, molecular alterations, and existing rodent models of human cancer listed by organ site. Furthermore, this website contains links to recent publications of mouse models, offers learning and communication tools, catalogs research resources, and provides information about the MMHCC, its organization and activities.

The cancer models database provides information about rodent models for cancer, including phenotypic and genetic descriptions of models, histopathology, derived cell lines, images, gene expression data, therapeutic approaches and publications. Users can query or submit the database by model name, species, tumor sites, therapeutic drugs, and other criteria. Some of the models in the cancer model databases are available to all members of the scientific community through the MMHCC Repository (http://mouse.ncifcrf.gov/).

The cancer images database is being developed to host human and rodent cancer images that are submitted by fellow researchers. Users can retrieve images and image annotations including species, tissue, gender, diagnosis, and image dimensions. The images are displayed in a viewer with zoom capabilities.

These resources are built using controlled vocabularies and are inter-linked with each other. They are also linked with other NCICB databases and outside resources. Together the emice, cancer models and cancer images sites provide comprehensive information from the level of molecular biology all the way through pre-clinical trials using mouse models of human cancer.